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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,037

01/25/2006

Ingo Erkens

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EXAMINER

GAMI, TEJAL

ART UNIT

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2121

MAIL DATE

DELIVERY MODE

07/02/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/566,037	Applicant(s) ERKENS, INGO	
	Examiner Tejal J. Gami	Art Unit 2121	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 16-30 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 25 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>25 January 2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in (DE) on 07/25/2003. It is noted, however, that applicant has not filed a certified copy of the 10334694.5 application as required by 35 U.S.C. 119(b).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Ehlers et al. (U.S. Publication Number 2001/0010032).

**As to independent claim 16**, Ehlers discloses a method of determining a load characteristic (e.g., load sensing and/or load control modules 24) indicating a load level on an electrical primary component (e.g., circuit breaker) of an electrical power distribution network (see Paragraph [0011]; and Figure 1), the method which comprises:

recording description values (e.g., load status) describing an operating state of the primary component by way of a sensor (e.g., load sensing and/or load control modules 24) connected to a field appliance (e.g., appliance control 24) carrying out

functions related to an automation of the power distribution network (see Paragraph [0011]; and Figure 1);

determining an overall sum of the description values over a duration of at least one predeterminable time interval to form a load intermediate value (e.g., consumption calculations for the device over a chosen interval) (see Paragraph [0071]); and

producing the load characteristic in dependence on a magnitude of the load intermediate value (e.g., level between the current that will be drawn) in comparison with a predeterminable load limit value (e.g., threshold) (see Paragraph [0088]).

**As to dependent claim 17**, Ehlers teaches the method according to claim 16, which comprises outputting the load characteristic (e.g., load sensing and/or load control modules 24) from the field appliance (e.g., appliance control 24) or from a data processing device connected to the field appliance (e.g., appliance control 24) (see Paragraph [0011]).

**As to dependent claim 18**, Ehlers teaches the method according to claim 16, which comprises producing a load signal (e.g., sensor output) and emitting the load signal (e.g., sensor output) from the field appliance (e.g., appliance control 24) or from a data processing device connected to the field appliance (e.g., appliance control 24), as a function of the magnitude of the load characteristic (e.g., load sensing and/or load control modules 24), when the load characteristic (e.g., load sensing and/or load control modules 24) indicates that the load on the primary component (e.g., circuit breaker) is particularly low and/or particularly high (see Paragraph [0088]).

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**As to dependent claim 19**, Ehlers teaches the method according to claim 16, which comprises utilizing a sensor (e.g., load sensing and/or load control modules 24) that is already present in the automation system to record the description values (e.g., load status) (see Paragraph [0011]).

**As to dependent claim 20**, Ehlers teaches the method according to claim 16, which comprises using as description values (e.g., load status) measured values of a primary measurement variable (e.g., load sensing and/or load control modules 24) (see Paragraph [0011]).

**As to dependent claim 21**, Ehlers teaches the method according to claim 20, wherein the primary measurement variable is a current (e.g., current sensor) through the primary component (e.g., circuit breaker) (see Paragraph [0088]).

**As to dependent claim 22**, Ehlers teaches the method according to claim 20, wherein the primary measurement variable is a voltage (e.g., voltages and currents) applied to the primary component (e.g., circuit breaker) (see Paragraph [0011]).

**As to dependent claim 23**, Ehlers teaches the method according to claim 20, wherein the primary measurement variable is a temperature (e.g., temperature sensor 26) of the primary component (e.g., circuit breaker) (see Paragraph [0005]; and Figure 1).

**As to dependent claim 24**, Ehlers teaches the method according to claim 16, which comprises:

repeatedly producing the load characteristic (e.g., consumption calculations for the device over a chosen interval) (see Paragraph [0071]); and

adding successive load intermediate values in a sum memory to form an aging characteristic (e.g., history table 54) (see Paragraph [0074]).

**As to dependent claim 25**, Ehlers teaches the method according to claim 24, which comprises outputting the aging characteristic from the field appliance (e.g., appliance control 24) or from a data processing device connected to the field appliance (e.g., consumption calculations for the device over a chosen interval) (see Paragraph [0071]).

**As to dependent claim 26**, Ehlers teaches the method according to claim 24, which comprises:

generating, with the field appliance (e.g., appliance control 24) or a data processing device connected to the field appliance (e.g., appliance control 24), an aging signal (e.g., consumption calculations) as a function of a magnitude of the aging characteristic in comparison with a predetermined aging limit value (e.g., consumption calculations for the device over a chosen interval) (see Paragraph [0071]); and

outputting the aging signal (e.g., consumption calculations) from the field appliance (e.g., appliance control 24) or the data processing device (e.g., consumption calculations for the device over a chosen interval) (see Paragraph [0071]).

**As to dependent claim 27**, Ehlers teaches the method according to claim 24, which comprises setting a sum memory to zero value on starting up the primary component (e.g., circuit breaker) (see Paragraph [0106]).

**As to dependent claim 28**, Ehlers teaches the method according to claim 24, which comprises setting a sum memory to a start value on starting up the primary component (e.g., circuit breaker), the start value taking account of a previous use of the primary component (e.g., circuit breaker) (see Paragraph [0106]).

**As to dependent claim 29**, Ehlers teaches the method according to claim 24, wherein the primary component is a circuit breaker (e.g., circuit breaker) with switching contacts, and the method comprises determining the description values (e.g., load status) in each case only while the switching contacts of the circuit breaker (e.g., circuit breaker) are open (e.g., relay or switch) (see Paragraph [0011]).

**As to dependent claim 30**, Ehlers teaches the method according to claim 16, wherein the primary component is a circuit breaker (e.g., circuit breaker) and the method further comprises:

determining a number of switching processes (e.g., relay or switch) carried out by the circuit breaker (e.g., circuit breaker) with the field appliance (e.g., appliance control 24) (see Paragraph [0011]; and Figure 1);

determining an aging switching value (e.g., relay or switch) from the number of switching processes (Figure 1) (see Paragraph [0011]); and

outputting the aging switching value (e.g., relay or switch) or a warning message derived therefrom with the field appliance (e.g., appliance control 24) (see Figure 1) or with a data processing device connected to the field appliance (see Paragraph [0011]).

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Spencer et al. (U.S. Patent Number 6,195,243) teaches method and apparatus for adaptive configuration and control in a network of electronic circuit breakers.

Horvath et al. (U.S. Publication Number 2003/0067725) teaches distributed monitoring and protection system for a distributed power network.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tejal J. Gami whose telephone number is (571) 270-1035. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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